

## APPENDIX C

### Army Pre-Positioned Afloat Fleet

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While eight LMSRs were being refurbished or built and two container ships were being refurbished, seven ships were called up from the Ready Reserve fleet to support the APA. In its end state, the APA fleet will comprise 16 ships: 8 LMSRs, 3 LASHs, 2 containers, 2 HLPs, and 1 auxiliary crane ship. The LMSR provides the ability to move equipment into the area faster than is currently available and the space to configure the loads to ease upload, maintenance, and discharge.

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#### CONTAINER SHIP PROFILE

Currently, two self-sustaining container ships are in the APA program: the *MVS LTC Calvin P. Titus* and *SP5 Eric G. Gibson*. These ships combine the capabilities of RO/RO container and break-bulk ships. They have the container capacity of 1,526 20-foot-equivalent

units (TEUs) and 40,000 square feet of RO/RO space. The strength of the garage deck, the clear-deck heights, and the immense stem ramp allow for the transport of heavy armored vehicles, including M1A1 tanks. See Figure C-1.

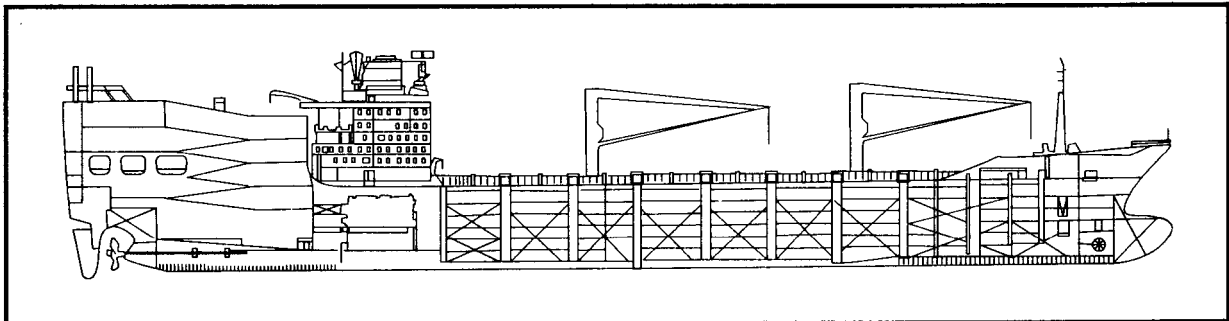


Figure C-1 - Container Ship

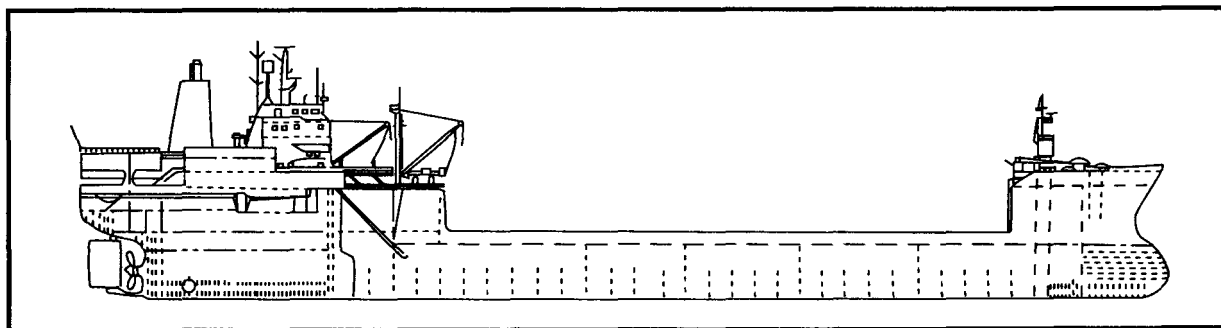
#### HEAVY-LIFT PRE-POSITIONED SHIP PROFILE

Currently, one HLPs, the *MV American Cormorant*, is in service and another is planned for FY 96. A semisubmersible heavy lift ship, the HLPs carries the equipment required to establish a working port. The ship's cargo deck can be

placed 26 feet below the water's surface by ballasting the ship to a draft of 66 feet. In this way, barges and other embarked watercraft may be floated off directly into the water. The barges contain the materiel-handling equipment needed

to move container and equipment ashore. Additionally, three tug boats, two LCM 8s, a ROWPU barge, and a floating 100-ton crane

barge are embarked aboard the HLPS. See Figure C-2.

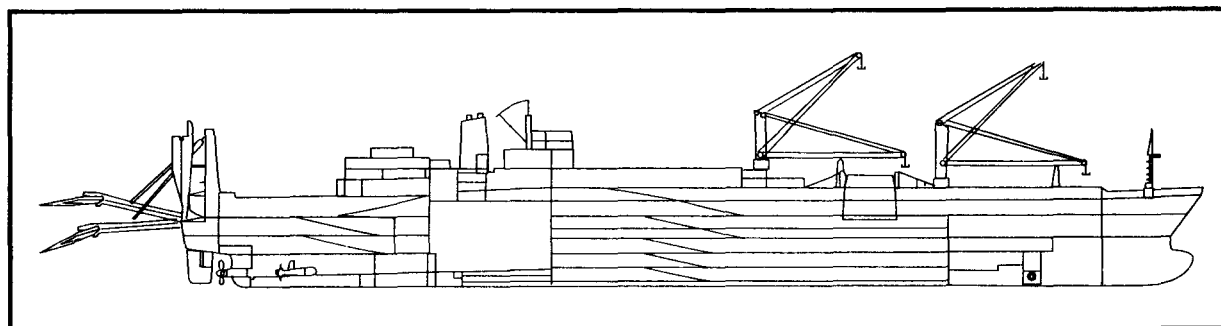


**Figure C-2 - Heavy-Lift Pre-Positioned Ship**

## LARGE MEDIUM-SPEED ROLL-ON/ROLL-OFF PROFILE

LMSR will be a future feature of the APA. Current plans are for five converted LMSRs to come on line in FY 96-97 to replace the current fleet of seven RO/ROs. In FY 98, three newly constructed LMSRs will join the fleet, followed by four more in FY 99-02. At that time, the five converted LMSRs will be removed from service. The new LMSRs will have two twin cranes for unloading containers and a slewing stem ramp,

which permits operation from port, starboard, or aft. A port- and starboard-side port/ramp will facilitate RO/RO operations from the side as well as the aft of the ship. The number of containers varies since they must be stowed in the RO/RO areas, thereby reducing deck space for vehicle storage. These ships have an overall capability of 470,230 long tons of cargo. See Figure C-3.



**Figure C-3 - Large Medium-Speed Roll-On/Roll-Off Ship**

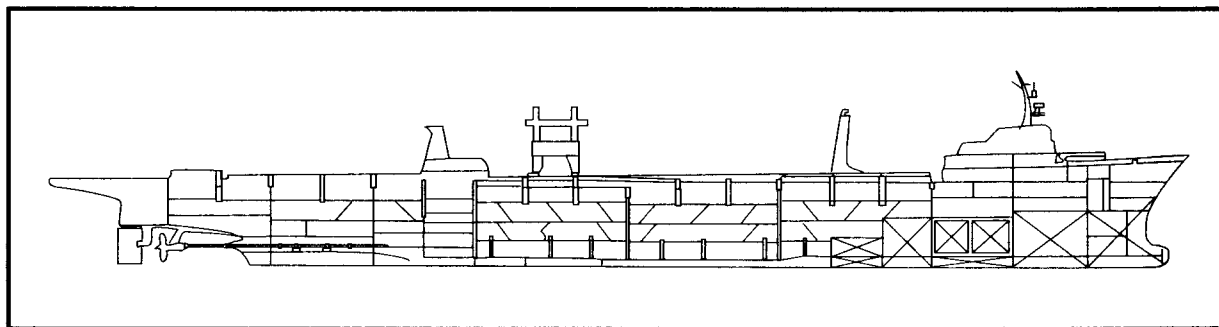
## LIGHTER ABOARD SHIP PROFILE

The APA program includes three LASH vessels: the *SS Green Harbour*, *SS Green Valley*, and *MV J. E. B. Stuart*. Each is capable of carrying

up to 88 cargo barges (lighters), but may carry less to make room for containers and pusher boats. Each lighter weighs between 82 and 86

long tons and may discharge either pierside or in stream. LASH vessels have two gantry-style cranes: one 30-long-ton crane (forward) for moving containers and one 465.18-long-ton gantry-for moving lighters. This second gantry can move nearly the length of the ship (except

for holds one and two) to discharge pusher boats, lighters, and hatch covers. In addition to the gantry cranes, LASH vessels have a 3-long-ton general cargo crane to help load the ship's stores. See Figure C-4.

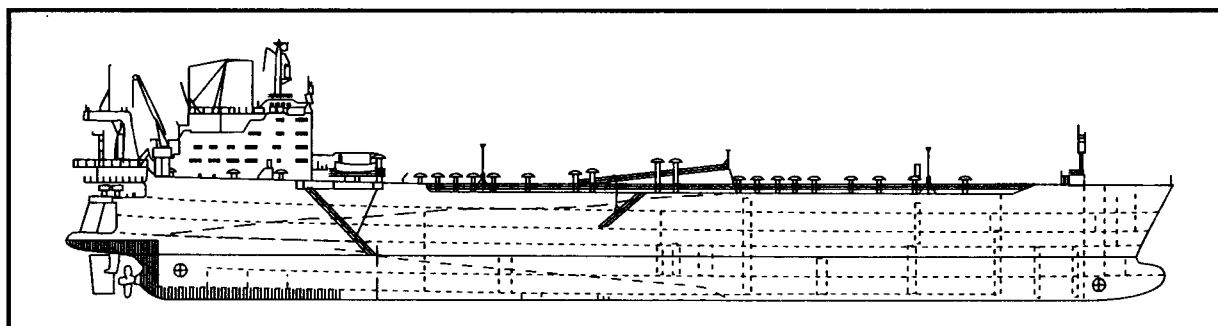


**Figure C-4 - Lighter Aboard Ship Vessels**

## CAPE D PROFILE

Two ships of the Cape D RO/RO class are serving with the APA program. They are the *MV Cape Decision* and *MV Cape Douglas*. These ships can carry up to 554 standard (8'x8'x20') ISO containers, but have no shipboard cranes; they require either pier cranes or an auxiliary crane

ship to unload them. They have a fixed 65-ton-capacity vehicle ramp on the starboard/stem quarter. The ramp allows RO/RO operations to the starboard side or aft only. These ships are capable of carrying 170,000 square feet of cargo. See Figure C-5.



**Figure C-5 - Cape D Ships**

## CAPE H PROFILE

Three Cape H RO/RO-class ships are serving with the APA program: the *MV Cape Henry*, *MV Cape Horn*, and *MV Cape Hudson*. They can carry up to 6,766 standard ISO

containers spread over four holds and have a 39-ton crane to unload the containers. They have a fixed 63.9-ton capacity vehicle ramp on the starboard/stern quarter. The ramp allows RO/

RO operations to the starboard side or aft only. These ships have an overall capability of

carrying 180,000 square feet of cargo. See Figure C-6.

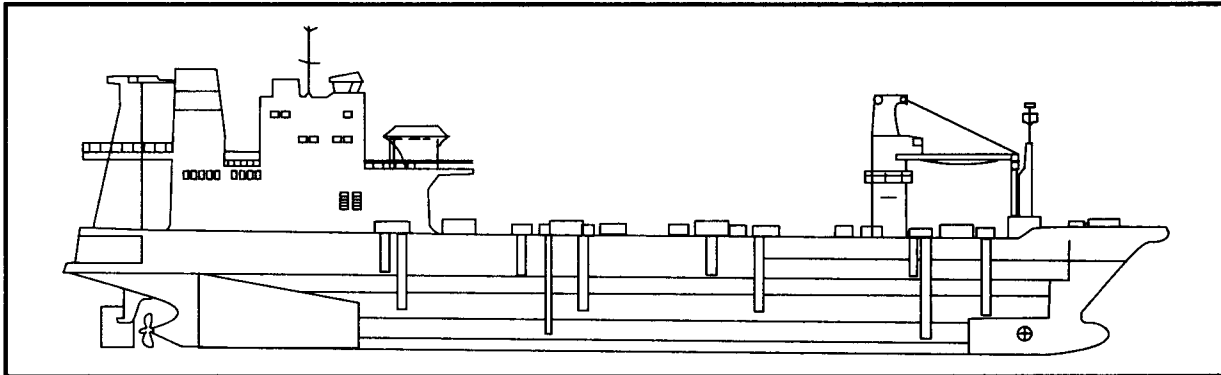


Figure C-6 - MV Cape H Ships

### CAPE W PROFILE

Two Cape W RO/RO-class ships serving with the APA program are the *Cape Washington* and *Cape Wrath*. These ships have a container capacity of 1,203 and one twin-boom shipboard crane with a capacity of 5 tons for self-unloading of vehicles. They also have a fixed vehicle ramp on the starboard/stern quarter and a vehicle

ramp on the starboard side, amidships. The side ramp allows RO/RO operations to starboard, and the stern ramp allows RO/RO operations to the starboard side or aft only. Overall, these ships can carry 190,000 square feet of cargo. See Figure C-7.

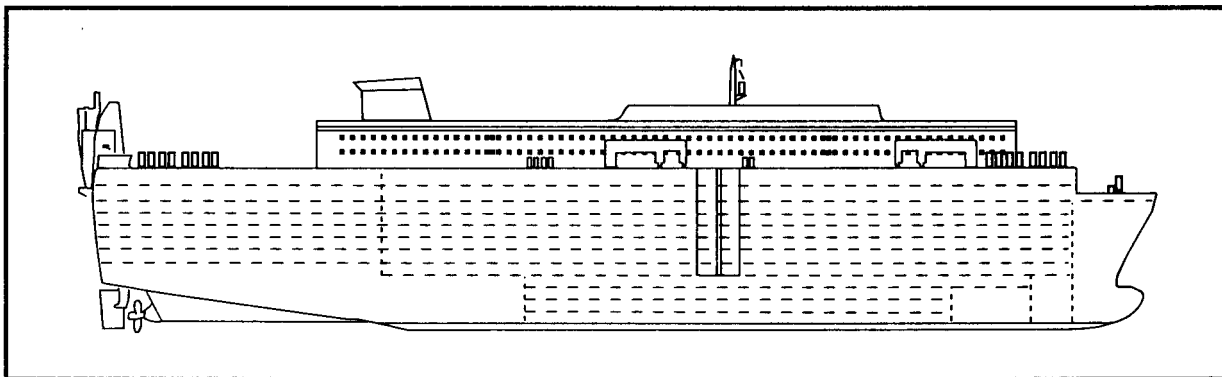


Figure C-7 - Cape W Ships

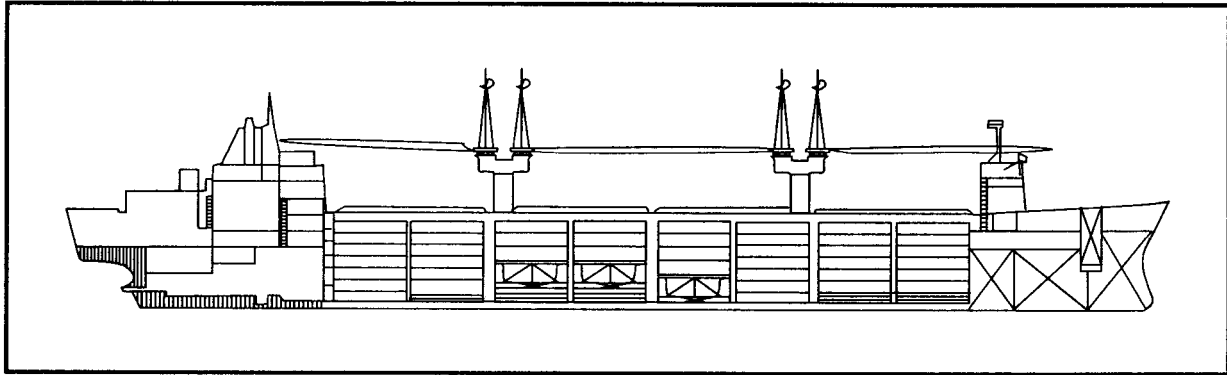
### AUXILIARY CRANE SHIP PROFILE

The *SS Gopher State* is the only T-ACS serving with the APA program. Its mission is to provide crane support when no improved pier

facilities exist. It has two twin 30-ton-capacity boom cranes mounted on the starboard side of the ship. When moored inboard of another ship,

cargo can be unloaded either from itself or from the outboard ship to the pier facility. Although not employed for their ability to carry cargo,

these ships have an overall capability of carrying 711 TEUs of containers. See Figure C-8.



**Figure C-8 - Auxiliary Crane Ship**